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Philips Medical Systems

SERVICE MANUAL

742

UNIT

Replacement Kit
Low-Speed Rotor Control

4512 104 7130.

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SERVICE MANUAL – UNIT

Low-speed rotor control

Type No.: 4512 104 7130.

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In case there are any questions concerning this manual,
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List of pages and drawings (LOPAD)

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3...7 (04.0)

Z1-12 (03.0) A3 Low-Speed Roco

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Contents

1. Introduction and technical data 4
1.1. Purpose of manual 4
1.2. Items supplied 4
1.3. Compatibility 4
1.4. Technical data 4
1.4.1. Mechanical data 4
1.4.2. Environmental data 4
1.4.3. Electrical data 5
1.4.4. Transport data 5
1.4.5. Tool 5
1.5. Safety information 5

2. Replacements 6
2.1. Replacement procedure of FRU 6
2.1.1. FRU Low-speed rotor control 6

3. Adjustments 7

4. Acceptance 7

5. Parts disposal 7

6. Drawings 7

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1. Introduction and technical data

1.1. Purpose of manual

This manual describes the low-speed rotor control unit.
The unit is delivered as an option with OPTIMUS RAD / RF / C generators ex factory pre-installed.
It is also delivered as a replacement kit in case of failures of the low-speed rotor control unit in the field.
Due to cost reduction purposes, service and factory stock is combined at one location and the number of service parts is reduced to one.

1.2. Items supplied

4512 104 7130. Low-speed rotor control

1.3. Compatibility

9890 000 02001 OPTIMUS RAD / RF
4512 104 7130. Drant LS
4512 108 0590. PCB Roco LS

1.4. Technical data

1.4.1. Mechanical data

Crate / Box	**Dimension (mm)**			**Weight (Newton)** (10 N = 1 Kg)
	Length	Width	Height	
Packed	600	380	380	50

1.4.2. Environmental data

	Operation	**Stock / Transport**
Temperature in °**Celcius**	0 / + 40	- 40 / + 75
Temperature in °**Celcius / Hour**	N / A	N / A
Humidity in % (non-condensing)	5 / 95	5 / 95
Gradient in % **/ hour**	N / A	N / A
Vibrations / Shock range in **Hz**	5 - 500	5 - 500
Vibrations / Shock amplitude in **mm**		
Vibrations / Shock acceleration in **g**	0.25 peak	1.0 peak
Shock acceleration in **g**	5 peak	30 peak
Shock pulse duration in **msec**	11	11
Air pressure in **Hecto-pascal**	700 / 1100	700 / 1100

Acoustic noise level : N / A
Air cooling : N / A
EMC : IEC 950

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1.4.3. Electrical data

Equipment related:

Power required	:	1200 VA
Nominal voltages	:	3x 230 VAC
Nominal current	:	3 A
Nominal frequency	:	50 Hz / 60 Hz
Heat emission		
standby	:	5 W (1 Joule/s = 1 W)
in operation	:	25 W (1 Joule/s = 1 W)

1.4.4. Transport data

N / A

1.4.5. Tool

Tools

Standard tool set :

1.5. Safety information

The general legal and factory safety recommendations for this X-ray equipment and the following recommendations must be strictly observed!
Start of installation, operation and maintenance work and especially electrical work must only be executed by trained and authorized persons. This equipment must only be serviced by properly educated service specialists who have received general and system-specific training as performed by Philips Medical Systems.

Warning!
The system/component must be switched OFF during replacement work.
Any X-ray unit produces ionizing radiation which may be harmful if not properly controlled. Therefore, it is recommended that this equipment be operated in accordance with the guidelines set down by the national council on radiation protection.

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2. Replacements

2.1. Replacement procedure of FRU

2.1.1. FRU Low-speed rotor control

Tools required: Standard tool set
Time/manpower: 1 hour / 1 service engineer
Preconditions: n / a

- Switch the generator OFF.
- Open the cabinet.
- **Switch ENF1 “OFF”.**
- Pull the generator from its original position to gain access to the low-speed rotor control unit which is installed at rear side of the generator.
- Open the cover.
- Disconnect all wires and cables.

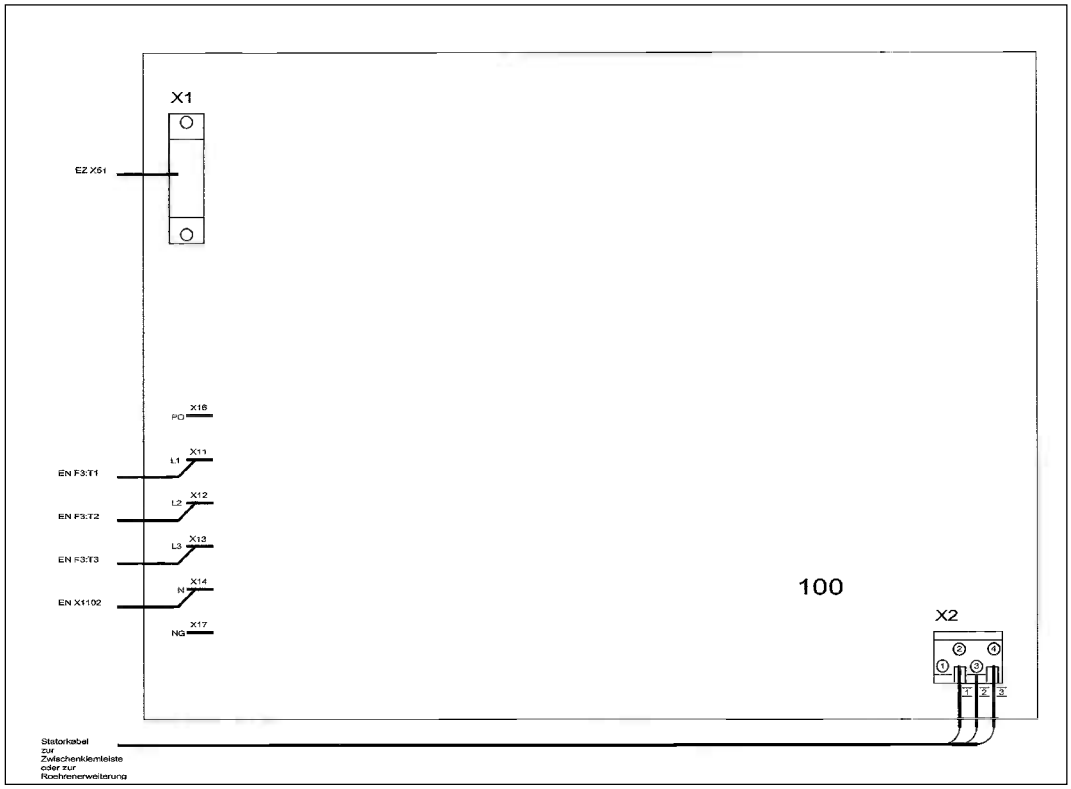

Figure 1

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- Remove the complete unit from generator cabinet, remove the four fixing screws.

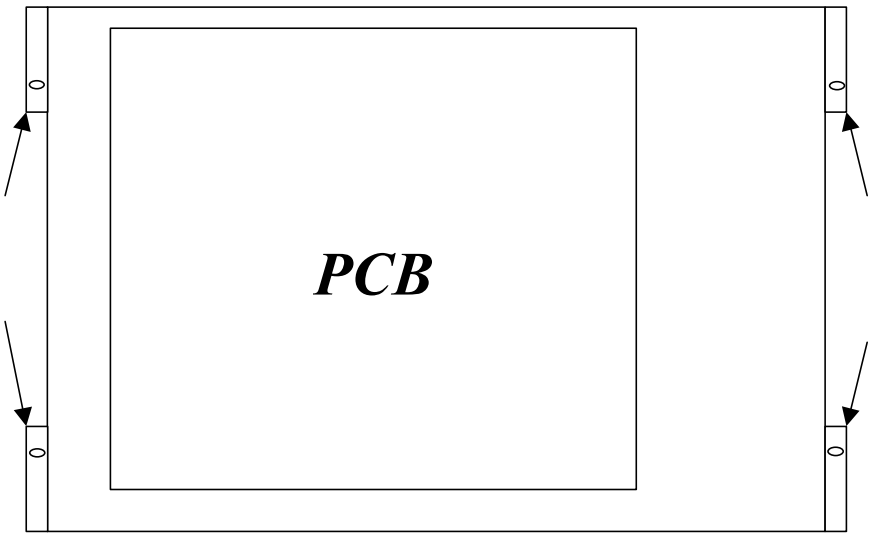

Figure 2

- Install the new unit in the cabinet, fix the unit with four screws.
- Open the unit cover.
- Connect all wires and cables according figure 1.
- Close the unit cover.
- Push back the generator into its original position.
- **Switch ENF1 "ON"**.
- Close cabinet cover
- Test all applicable functions.

3. Adjustments

n / a

4. Acceptance

n / a

5. Parts disposal

All parts are to be disposed of in a safe way in accordance with local safety regulations.

6. Drawings

Low-speed rotor control Z1-12

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